

METHOD AND APPARATUS TO TRIGGER
SUPERCONDUCTORS IN CURRENT LIMITING
DEVICES

ABSTRACT

A method and apparatus for magnetically triggering a superconductor in a superconducting fault current limiter to transition from a superconducting state to a resistive state. The triggering is achieved by employing current-carrying trigger coil or foil on either or both the inner diameter and outer diameter of a superconductor. The current-carrying coil or foil generates a magnetic field with sufficient strength and the superconductor is disposed within essentially uniform magnetic field region. For superconductor in a tubular-configured form, an additional magnetic field can be generated by placing current-carrying wire or foil inside the tube and along the center axial line.